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HARD ROCK MINING ON THE PUBLIC LAND: A TIME FOR COMPROMISE

With little aid from the courts, the industry must rely on legislative reform to solve its problems. But will Congress be content to amend the 1872 law, or will it abolish the system altogether? Therein lies the problem, and so the mining industry clings fervently to an outmoded law, preferring the troublesome present to an unknown future.¹

I. EXPANDED PRE-DISCOVERY PROTECTION

The doctrine of *pedis possessio*² evolved as a judicial solution to a significant legislative deficiency in the Mining Law of 1872³; the Mining Act's failure to protect the mining claims of prospectors on the public land⁴ prior to discovery.⁵ The doctrine of *pedis possessio* protected a mineral prospector's pre-discovery claim from being usurped by an

1. Harris, *The Law of Millsites: History and Application*, 9 NAT. RESOURCES LAW. 103, 142-43 (1976).

2. The literal meaning of *pedis possessio* is: "A foothold; an actual possession." BLACK'S LAW DICTIONARY 1019 (5th ed. 1979). This meaning probably played a significant role in how courts decided to apply the doctrine to the Mining Law of 1872, and may also be one reason for the reluctance to expand the scope of the doctrine's protection.

3. 30 U.S.C. §§ 21-54 (1976).

4. The scope of this paper is limited to hard rock mining on the public land because the topic of this comment, the doctrine of *pedis possessio* and the related Mining Law of 1872, pertains only to hard rock mining on the public land. Approximately one-third of the land in the United States is publicly owned land and nearly 68 percent of this land (over 740 million acres) is open for hard rock mining. COUNCIL ON ENVIRONMENTAL QUALITY, *HARD ROCK MINING ON THE PUBLIC LAND* 1 (1977) [hereinafter cited as ENVIRONMENTAL QUALITY]. This information was obtained from A.E. Paladino, Program Manager, Material Assessment Program, Office of Technology Assessment, U.S. Congress, *Statement for the Record of the Department of Interior's Hearings on the Availability of Federal Lands for Mineral Exploration and Development* (October 15, 1976).

The term "hard rock mining" in this comment refers to the mining of solid minerals rather than minerals found in a gaseous or liquid state. However, not all solid minerals are included in this discussion. Only those minerals presently covered by the Mining Law of 1872, such as copper, zinc, silver, gold and uranium are included. For a listing of some solid substances not covered by the Mining Law of 1872, see the Mineral Leasing Act of 1920, 30 U.S.C. §§ 181-287, 181 (1976), and the Surface Resources Act, 30 U.S.C. §§ 601-615, 611 (1976).

5. The Mining Law of 1872 provides no protection for a miner's claim until an actual discovery of a valuable mineral has been made. See 30 U.S.C. § 23 (1976) (originally enacted as Act of May 10, 1872, ch. 152, § 2, 17 Stat. 91) which provides: "[N]o location of a mining claim shall be made until the discovery of the vein or lode within the limits of the claim located." *Id.* Some courts did begin to recognize the propriety of marking and locating a claim prior to discovery despite the language of the statute. This, however, did not affect the role of *pedis possessio*. See notes 51-54 & 112 *infra* and accompanying text.

other party⁶ provided that the prospector: (1) was in actual possession of the site; (2) was diligently working towards discovery; and (3) excluded others from the site.⁷ The doctrine of *pedis possessio* was not intended to exist independently⁸; its sole purpose was to facilitate the achievement of the Act's purpose, which was to encourage mineral exploration on the public land.⁹

Initially, courts applied the three elements of *pedis possessio* very narrowly in keeping with nineteenth century mining practices. Most courts held that the doctrine's protection only extended to the immediate area upon which the prospector was working, but gradually courts began to expand the doctrine's protection to the full limits of each claim.¹⁰ There were two reasons for the initial conservative application of the doctrine. First, there was the danger that the doctrine would be misused by persons seeking to appropriate large areas of the public land for purposes other than mining,¹¹ and secondly, mining at that

6. The doctrine of *pedis possessio* does not protect a mineral prospector from removal action by the United States. A prospector's status on the public land prior to discovery, as against the United States, is that of a licensee or tenant at will. See *Union Oil Co. v. Smith*, 249 U.S. 337, 346 (1918). *Contra*, *United States v. Deasy*, 24 F.2d 108, 111 (D. Idaho 1928). For a critical discussion of the doctrine of *pedis possessio* and its application to the United States, as the land owner, see Tognoni, *Rule of Man vs. The American Mining Laws: The Persecution and Elimination of the Small Miner on Public Lands in the United States*, 55 N.D.L. REV. 339, 347-50 (1979).

7. Fiske, *Pedis Possessio—Modern Use of an Old Concept*, 15 ROCKY MTN. MIN. L. INST. 181, 191 (1969). The author also succinctly summarizes the doctrine of *pedis possessio*:

The doctrine [of *pedis possessio*] pertains to possessory rights existing prior to the discovery of a valuable mineral in a mining claim. . . .

. . . . [It] is not an elaborate doctrine nor a complex system of rules and concepts. The classic discourse on it is in . . . *Union Oil Co. v. Smith*, in which the theory [of *pedis possessio*] was recognized as providing that if a qualified person peaceably and in good faith enters vacant, unappropriated public domain for the purpose of exploring for and discovering a valuable mineral . . . he may exclusively hold the place where he is working against those having no better right, . . . so long as he remains in continuous, exclusive occupancy and diligently and in good faith prosecutes work directed toward making a discovery.

Id. at 182-83 (footnote omitted).

8. Fiske also explains the relationship between the doctrine of *pedis possessio* and the Mining Law of 1872:

The concept of such pre-discovery rights or protection is merely adjunct to the [Mining Law of 1872] *Pedis possessio* has no independent existence or purpose, and no permanent consequence of its own. It is not a title and does not accomplish the vesting of any title or permanent rights. It is no more than a device to implement the [Mining Law of 1872].

It follows, therefore, that the scope and operation of *pedis possessio* must be consistent with the existing principles of the [Mining Law of 1872].

Id. at 183-84 (footnotes omitted).

9. ENVIRONMENTAL QUALITY, *supra* note 4, at 3.

10. Fiske, *supra* note 7, at 187-88. For a discussion of the cases involved and the reason for the change, see notes 48-54 *infra* and accompanying text.

11. *Id.* at 186-87.

time consisted mainly of "pick and shovel" searches for outcroppings and shallow mineral deposits, usually by a solitary miner.¹² Today, most, if not all, of these easily accessible minerals have been discovered.¹³ Advances in mining technology, however, have made deeper deposits of minerals accessible but with a corresponding increase in costs. To recover these costs, today's miner must mine larger areas of the public land. But when he has sought to protect these larger areas of land prior to discovery, he has found most courts unwilling to extend the doctrine of *pedis possessio* beyond each individual claim¹⁴ unless the prospector satisfies all three elements of the doctrine on every claim in the area he wants protected.¹⁵ The economic and operational impracticality of this individual claim requirement precludes many miners from receiving the doctrine's pre-discovery protection resulting in greatly inhibited mineral exploration. The prospect of having one's claims appropriated by another before mining operations commence makes even the most adventurous mineral explorer cautious because of the economic risk involved.¹⁶ The disconcerting, anomalous result is that, in effect, the doctrine of *pedis possessio* no longer encourages mineral exploration but actually discourages it.

In facing this result, courts have either expanded the scope of the protection afforded by the doctrine of *pedis possessio*¹⁷ or have manifested an apparent willingness to do so¹⁸ without requiring the prospector to satisfy the doctrine's elements on every claim located in the mining area. The propriety of this expansion was to have been considered by the United States Supreme Court during its 1980 term,¹⁹ but the appellant, a uranium prospector, dismissed the case under Supreme Court Rule 53.²⁰ Although this action appears anomalous at first,

12. *Id.*

13. Ladendorff, *Enlarging Prediscovery Rights of Mineral Locaters*, 6 ROCKY MTN. MIN. L. INST. 1, 1 (1961).

14. 30 U.S.C. § 35 (1976) imposes a maximum claim size of 20 acres.

15. *See, e.g.,* *Ranchers Exploration & Dev. Co. v. Anaconda Co.*, 248 F. Supp. 708, 721-22 (D. Utah 1965).

16. *See* Fiske *supra* note 7, at 210-22.

17. *MacGuire v. Sturgis*, 347 F. Supp. 580 (D. Wyo. 1971).

18. *Continental Oil Co. v. Natrona Service, Inc.*, 588 F.2d 792 (10th Cir. 1978).

19. *Geomet Exploration v. Lucky Mc Uranium Corp.*, 124 Ariz. 60, 601 P.2d 1344 (Ct. App. 1979), *rev'd*, 124 Ariz. 55, 601 P.2d 1339 (1979), *cert. granted*, 100 S. Ct. 3009, *appeal dismissed*, 49 U.S.L.W. 3173 (Sept. 23, 1980) (pursuant to Sup. Ct. R. 53, 9-12-80).

20. Supreme Court Rule 53 provides for the dismissal of cases before the Supreme Court either upon the motion of both parties or upon the motion of the appellant or petitioner in the case. The rule states, in part:

1. Whenever the parties thereto, at any stage of the proceedings, file with the Clerk an agreement in writing that any cause be dismissed, specifying the terms with respect to

closer examination suggests that the action may have been taken only after the risks involved had been carefully weighed; not only from an adverse decision, but also from possible public criticism engendered from a favorable one.²¹

Two federal courts, the Tenth Circuit Court of Appeals and the District Court of Wyoming, both having jurisdiction in an area where much of the known uranium deposits are located,²² either had upheld an expanded application of *pedis possessio*²³ or had manifested a willingness to do so.²⁴ An adverse ruling by the Supreme Court would have eliminated these two important gains. Conversely, a favorable ruling, while initially being a boon to public land hard rock mining, would also have spawned a tumultuous outcry by environmentalists opposed to the Mining Law of 1872's policy of free access to the public

costs, and pay to the Clerk any fees that may be due, the Clerk, . . . shall enter an order of dismissal.

2.(a) Whenever an appellant or petitioner in this Court files with the Clerk a motion to dismiss a cause to which he is a party, with proof of service as prescribed by Rule 28, and tenders to the Clerk any fees and costs that may be due, the adverse party . . . may file an objection, limited to the quantum of damages and costs in this Court alleged to be payable, or, in a proper case, to a showing that the moving party does not represent all appellants or petitioners if there are more than one.

. . . .

. . . (c) If no objection is filed, or if upon objection going only to the quantum of damages and costs in this Court, the party moving for dismissal . . . shall tender the whole of such additional damages and costs demanded, the Clerk, . . . shall enter an order of dismissal.

SUP. CT. R. 53.

21. John C. Lacy, attorney for appellant Lucky Mc Uranium Corp., said he filed the motion for voluntary dismissal under Supreme Court Rule 53 (2) at the request of his client after the Arizona Mining Association, which had filed an *amicus curiae* brief, withdrew its support from the case. Telephone conversation with John C. Lacy, of the firm of DeConcini, McDonald, Brammer and Yewtin, Tucson, Arizona (January 22, 1981).

C. J. Hansen, President of the Arizona Mining Association, declined to give the reason for the Association's withdrawal but did say they were not happy with the Arizona Supreme Court's decision in *Lucky Mc Uranium*, which upheld the traditional narrow application of *pedis possessio*. Telephone conversation with C. J. Hansen, President of the Arizona Mining Association (January 22, 1981).

Whatever the real reason was for this dismissal, it must have been significant because the facts in *Lucky Mc Uranium* provided the Supreme with what one writer had portrayed in a hypothetical as the perfect case for judicial resolution of the scope of the doctrine of *pedis possessio*. See Note, *Monopolization of the Public Land or Necessary Liberalization of Exploration Laws?*, 20 NAT. RESOURCES J. 387, 392-93 (1980). The lateness of the dismissal (*i.e.*, after *certiorari* had already been granted) also suggests that the decision to dismiss was not made arbitrarily.

22. Four states make up the area where much of the known deposits of uranium are located: Colorado; New Mexico; Utah; and Wyoming. All of these are within the jurisdiction of the 10th Circuit Court of Appeals and, of course, Wyoming is in the jurisdiction of the Wyoming Federal District Court. See Friedman, *Environmental Problems Relating to Uranium Mining and Milling*, Appendix A (1978) (copy on file in TULSA LAW JOURNAL offices).

23. See note 17 *supra*.

24. See note 18 *supra*.

land for mineral exploration,²⁵ and may have created an atmosphere wherein these opponents could have successfully pressed for the repeal of the Mining Law of 1872 and the substitution of a leasing system in its place.²⁶ The decision to dismiss the appeal, however, left Arizona miners with a decision they disliked, and also left the future of *pedis possessio* and, thus, the Mining Law of 1872 unclear. Additionally, any future favorable court decision will probably evoke the same opposition and create the same risks; thus some other satisfactory resolution must be reached.

The need for a satisfactory solution to this dilemma coincides with an even more critical problem that must soon be resolved: our country's dependence on foreign sources for both "fuel and nonfuel minerals."²⁷ Hard rock mining in the United States must be increased to alleviate this foreign dependence and to do this, the mining industry

25. 30 U.S.C. § 22 (1976).

Except as otherwise provided, all valuable mineral deposits in lands belonging to the United States, both surveyed and unsurveyed, shall be free and open to exploration and purchase, and the lands in which they are found to occupation and purchase, by citizens of the United States and those who have declared their intention to become such, under regulations prescribed by law, and according to the local customs or rules of miners in the several mining districts, so far as the same are applicable and not inconsistent with the laws of the United States.

Id.

26. For a discussion of leasing, see notes 89-98 *infra* and accompanying text.

27. "Fuel minerals" refers to energy producing minerals and "non-fuel minerals" refers to minerals that are not energy producing. See SUBCOMM. ON MINES AND MINING OF THE COMM. ON INTERIOR AND INSULAR AFFAIRS, 96TH CONG., 2D SESS., REPORT ON U.S. MINERAL VULNERABILITY: NATIONAL POLICY IMPLICATIONS, VII-8 (Comm. Print No. 9, 1980) [hereinafter cited as U.S. MINERAL VULNERABILITY].

There is an emerging awareness in this nation that oil is not the only mineral in short supply. Access to non fuel minerals cannot be left to chance in view of the critical role these resources play in our defense, economy, and everyday lives. Our foreign policies must incorporate the realities of our import dependence problems.

Letter from the Honorable Morris K. Udall, Chairman, to the members of the Comm. on Interior and Insular Affairs (undated), *reprinted in id.* at III.

The following chart, although not limited to hard rock minerals, illustrates the United States' dependence on foreign mineral sources and the quantity of each mineral on Federal lands (public land) vs. non-Federal land.

must be encouraged to increase exploration activities.²⁸ Expansion of

RESERVES, RESOURCES OF SELECTED MINERAL COMMODITIES, AND
POTENTIAL FEDERAL LAND CONTRIBUTION

Mineral commodities	Reserves at current prices ¹	Hypothetical resources ²	Potential Federal versus non-Federal ³	Imports exceed 50 percent of 1976 domestic consumption*
Aluminum (million short tons) . . .	10	Very large	Major	(*)
Antimony (thousand short tons) . .	120	Small	Major	
Beryllium (thousand short tons) . . .	28	Huge	Major	
Bismuth (million pounds)	26	NA	Major	(*)
Cadmium (million pounds)	220	NA	Major	(*)
Chromium (million short tons)	NA	Insignificant . .	Major	(*)
Coal (billion short tons)	4437	Huge	Medium	
Cobalt (million pounds)	540	NA	Major	(*)
Copper (million short tons)	93	Large	Major	
Fluorine (million short tons)	16	Small	Major	(*)
Gold (million troy ounces)	100	NA	Major	(*)
Graphite (million short tons)	NA	Very large	Minor	
Gypsum (million short tons)	350	Huge	Major	
Iron (billion short tons)	4	Huge	Medium	
Lead (million short tons)	59	Moderate	Major	
Manganese (million short tons)	NA	NA	Major	(*)
Mercury (thousand flasks)	430	NA	Major	(*)
Molybdenum (billion pounds)	7	Huge	Major	
Natural gas (trillion cubic feet)	228	Large	Medium (onshore)	
Nickel (million pounds)	400	Moderate	Major	(*)
Petroleum (million barrels)	33	Large	Medium (onshore)	
Phosphate rock (million short tons)	2,500	Very large	Major	
Potash (K ₂ Oeq.) (million short tons)	200	Huge	Medium	
Soda ash (billion short tons)	30	Huge	Major	
Silver (million troy ounces)	1,500	Moderate	Major	
Titanium (million short tons)	32	Very large	Medium	(*)
Tungsten (million pounds)	240	Moderate	Major	(*)
Uranium (U308) (thousand short tons)	5640	Large	Major	
Vanadium (thousand short tons)	115	NA	Major	
Zinc (million short tons)	30	Very large	Medium	

¹ USBM estimate 1973.

² Resources appraisal terms: Huge—domestic resources are greater than 10 times the minimum anticipated cumulative demand (MACD) between 1971 and 2000; very large—domestic resources are 2 to 10 times the MACD; large—domestic resources are approximately 75 percent to twice the MACD; moderate—domestic resources are approximately 35 to 75 percent of the MACD; small—domestic resources are approximately 10 to 25 percent of the MACD.

³ Hypothetical resources. They are undiscovered by geologically predictable deposits of materials which are essentially well known as to location, extent and grade and which may be exploitable in the future under more favorable economic conditions or with improvements in technology.

⁴ Reserve base.

⁵ AT \$30 per pound.

Source: Modifications of data in final report of the National Commission on Materials Policy, June 1973, for Department of Interior Task Force Report on Minerals Availability.

Id. at 62.

28. The Honorable James D. Santini, Chairman of the Subcommittee on Mines and Mining commented on the current status of the mining industry and the result if this status is not changed:

the pre-discovery protection of the *pedis possessio* doctrine would promote an increase in mineral exploration activities by providing prospectors with greater protection for their financial investment prior to discovery. However, any attempt to expand the doctrine's protection must address, and attempt to satisfy, the objections of the leasing advocates.²⁹ It is this comment's position that legislation is the best vehicle for achieving an acceptable compromise, even though previous legislative bids have failed to do so.³⁰ Our growing energy needs, an acute awareness of our country's need to become less reliant on foreign mineral resources, and the replacement of a pro-leasing administration³¹ with the more conservative Reagan administration may soon create an atmosphere more conducive to legislative action.

II. AN HISTORICAL PERSPECTIVE: THE DEVELOPMENT OF *Pedis Possessio*

The original Mining Law of 1872³² evolved from the consolidation³³ of the Lode Law of 1866³⁴ and the Placer Act of 1870.³⁵ Prior to 1866, the federal government did not have an effective uniform policy regulating mineral prospector access to the public land; however, this did not prevent exploration of the public land.³⁶ Faced with choosing between declaring invalid already existing mining claims on the public land and legalizing these claims, Congress opted for the latter, less problematic approach.³⁷ The Mining Law of 1872 and its two forerun-

Our domestic [mining] industry is continually eroding, in large part due to governmental impediments to profitable operations. Tax policies, environmental regulations, and withdrawal of Federal lands have marked the demise of a viable American mining industry. If this trend continues, this Nation will be forced into compromising positions by foreign governments who control the flow of minerals to our borders.

Letter from James D. Santini to the Honorable Morris K. Udall (September 8, 1980), *reprinted in id.* at IV.

29. See notes 89-98 *infra* and accompanying text.

30. See, e.g., *Mining Law Reform: Hearings on H.R. 5831 and H.R. 9292 Before the Subcomm. on Interior and Insular Affairs*, 95th Cong., 1st Sess. (1977) [hereinafter cited as *Hearings on H.R. 5831 and H.R. 9292*].

31. *Id.* H.R. 9292 was the Carter Administration's bill, and would have repealed the Mining Law of 1872 and replaced it with a leasing system.

32. Act of May 10, 1872, ch. 152, §§ 1-16, 17 Stat. 91 (current version at 30 U.S.C. §§ 21-54 (1976)).

33. See ENVIRONMENTAL QUALITY, *supra* note 4, at 3; 1 AMERICAN LAW OF MINING § 1.17 (1980).

34. Act of July 26, 1866, ch. 262, §§ 1-11, 14 Stat. 251 (current version at 30 U.S.C. §§ 21-54 (1976)).

35. Act of July 9, 1870, ch. 235, §§ 12-17, 16 Stat. 217 (current version at 30 U.S.C. §§ 21-54 (1976)).

36. See ENVIRONMENTAL QUALITY, *supra* note 4, at 3.

37. *Id.*

ners, therefore, were essentially a codification of 1872 customs and mining practices.³⁸

The purpose of the 1872 Mining Law was to promote mineral exploration on the public land,³⁹ and towards this accomplishment the Act provided free access to the public land⁴⁰ with the promise of ownership upon mineral discovery and the patenting of the claim.⁴¹ Prior to discovery, the Act provided no protection to a mineral prospector; and while this was consistent with the policy of free access to the public land, it had an inhibiting effect on public land mineral exploration, because the risk of being "claim-jumped"⁴² discouraged many would-

38. The United States Supreme Court in *Jennison v. Kirk*, 98 U.S. 453 (1878) discussed these customs and practices, their development and their adoption in the Lode Law of 1866:

The object of the section [§ 9 of the Lode Law of 1866] was to give the sanction of the United States, the proprietor of the lands, to possessory rights, which had previously rested solely upon the local customs, laws, and decisions of the courts, and to prevent such rights from being lost on a sale of the lands. The section is to be read in connection with other provisions of the act of which it is a part, and in the light of matters of public history relating to the mineral lands of the United States. The discovery of gold in California was followed, as is well known, by an immense immigration into the State, The lands in which the precious metals were found belonged to the United States, and were unsurveyed, and not open, by law, to occupation and settlement. Little was known of them further than that they were situated in the Sierra Nevada mountains. Into these mountains the emigrants in vast numbers penetrated, occupying the ravines, gulches, and cañons, and probing the earth in all directions for the precious metals. . . . In every district which they occupied they framed certain rules . . . , by which the extent of ground they could severally hold for mining was designated, their possessory right to such ground secured and enforced, and contests between them either avoided or determined. These rules bore a marked similarity, varying in the several districts only according to the extent and character of the mines; distinct provisions being made for different kinds of mining, such as placer mining, quartz mining, and mining in drifts or tunnels. They all recognized discovery, followed by appropriation, as the foundation of the possessor's title, and development by working as the condition of its retention. And they were so framed as to secure to all comers, within practicable limits, absolute equality of right and privilege in working the mines. Nothing but such equality would have been tolerated by the miners, who were emphatically the law-makers, as respects mining, upon the public lands in the State. The first appropriator was everywhere held to have, within certain well-defined limits, a better right than others to the claims taken up; and in all controversies, except as against the government, he was regarded as the original owner, from whom title was to be traced. . . . [T]he act [Lode Law of 1866] continued the system of free mining, holding the mineral lands open to exploration and occupation, subject to legislation by Congress and to local rules. It merely recognized the obligation of the government to respect private rights which had grown up under its tacit consent and approval. It proposed no new system, but sanctioned, regulated, and confirmed a system already established, to which the people were attached.

Id. at 456-59 (citation omitted).

39. See ENVIRONMENTAL QUALITY, *supra* note 4, at 3.

40. Act of 1872, ch. 152, § 1, 17 Stat. 91 (current version at 30 U.S.C. § 22 (1976)). See note 25 *supra* for the language of the statute.

41. Act of 1872, ch. 152, § 6, 17 Stat. 92 (current version at 30 U.S.C. § 29 (1976)).

42. "Claim-jumped" is a term that developed during the 19th century to refer to the illegal act of taking, often by force, of a mining claim from the prospector legally entitled to possess that claim.

be prospectors.⁴³

The courts' responded to this deficiency in the Mining Law of 1872 by creating the doctrine of *pedis possessio*. The language cited most often as illustrating the doctrine's purpose comes from the United States Supreme Court in *Union Oil Co. v. Smith*:⁴⁴

[A]s a practical matter, exploration must precede the discovery of minerals, and some occupation of the land ordinarily is necessary for adequate and systematic exploration, legal recognition of the *pedis possessio* of a bona fide and qualified prospector is universally regarded as a necessity. It is held that upon the public domain a miner may hold the place in which he may be working against all others having no better right, and while he remains in possession, diligently working towards discovery, is entitled—at least for a reasonable time—to be protected against forcible, fraudulent, and clandestine intrusions upon his possession.⁴⁵

Union Oil also established the essential elements of the *pedis possessio* doctrine which must be met before the doctrine can be used to protect a pre-discovery mining claim. These elements are:

- (1) Actual possession of the ground;
- (2) Diligent prosecution of work towards discovery; and
- (3) Exclusion of others.⁴⁶

Traditionally, the actual possession element of the doctrine of *pedis possessio* was construed only to protect the ground upon which a prospector was actually working. The doctrine's protection did not extend to the full limits of the miner's claim.⁴⁷ Around the turn of the century, however, some courts began to manifest a willingness to extend the protection of *pedis possessio* to the full extent of a miner's claim.⁴⁸ These cases involved the exploration for oil on the public land which, at that time, was still within the scope of the Mining Law of 1872.⁴⁹

43. Fiske, *supra* note 7, at 186.

44. 249 U.S. 337 (1919).

45. *Id.* at 346-47.

46. See Fiske, *supra* note 7, at 190-91.

47. *Zollars v. Evans*, 5 F. 172 (C.C.D. Colo. 1880). "On the public domain of the United States a miner may hold the place in which he may be working against all others having no better right. But when he asserts title to a full claim . . . , he must prove a lode [discovery of a mineral] extending throughout the claim." *Id.* at 173. *Accord*, *Hanson v. Craig*, 170 F. 62 (9th Cir. 1909); *Gemmel v. Swain*, 28 Mont. 331, 72 P. 662 (1903).

48. See *Biglow v. Conradt*, 159 F. 868 (9th Cir. 1908); *McLemore v. Express Oil Co.*, 158 Cal. 559, 112 P. 59 (1910); *Miller v. Chrisman*, 140 Cal. 440, 73 P. 1083 (1903), *aff'd*, 197 U.S. 313 (1905); *Phillips v. Brill*, 17 Wyo. 26, 95 P. 856 (1908).

49. Oil was removed from the Mining Law of 1872 by the Mineral Leasing Act of 1920, ch. 85 § 1, 41 Stat. 437 (current version at 30 U.S.C. § 181 (1976)). The Mineral Leasing Act of 1920

Deeper deposits of oil were being sought, more sophisticated exploration equipment was being utilized, and larger areas of the public land were being explored.⁵⁰ Oil prospectors needed more protection for their interests prior to discovery and the courts responded by recognizing the propriety of marking and recording claims prior to discovery, and by extending the protection of the doctrine of *pedis possessio* to the full limits of such claims.⁵¹ In 1919, the Supreme Court in *Union Oil Co. v. Smith*⁵² recognized these advances,⁵³ but cautioned that: "Whatever the nature and extent of a possessory right before discovery, all authorities agree that such possession may be maintained only by continued actual occupancy by a qualified locator . . . engaged in persistent and diligent prosecution of work looking to the discovery of mineral."⁵⁴

The Supreme Court's comments in *Union Oil Co.* concerning the doctrine of *pedis possessio* have nearly acquired the stature of controlling precedent, despite the fact that they were dicta.⁵⁵ The language in

was essentially congress' response to a national movement urging conservation of certain minerals, including oil. See Colby, *The Law of Oil and Gas*, 30 CALIF. L. REV. 245 (1942).

50. Fiske, *supra* note 7, at 188.

51. See *Erwin v. Perego*, 93 F. 608, 611 (8th Cir. 1899), where the court stated, "[m]oreover, there is no requirement in the legislation of congress [Mining Law of 1872] that the discovery shall be made before the location, or that the location shall precede the discovery." *Id.* See also *Miller v. Chrisman*, 140 Cal. 440, 73 P. 1083 (1903) where the court stated:

It is to be remembered that it is not essential to the validity of a location that the discovery shall have preceded or shall coexist with the posting of the notice and the demarkation of boundaries. The discovery may be made subsequently, and when made operates to perfect the location against all the world, saving those whose bona fide rights have intervened. One who thus in good faith makes his location, *remains in possession*, and with due diligence prosecutes his work toward a discovery, *is fully protected* against all forms of forcible, fraudulent, surreptitious, or clandestine entries and intrusions upon his possession.

Id. at —, 73 P. at 1084 (emphasis added).

52. 249 U.S. 337.

53. *Id.* at 347-48.

In the California courts the right of a locator before discovery while in possession of his claim and prosecuting exploration work is recognized as a substantial interest, extending not only as far as the *pedis possessio* but to the limits of the claim as located; so that if a duly qualified person peaceably and in good faith enters upon vacant lands of the United States prior to discovery but for the purpose of discovering oil or other valuable mineral deposits, there being no valid mineral location upon it, such person has the right to maintain possession as against violent, fraudulent, and surreptitious intrusions so long as he continues to occupy the land to the exclusion of others and diligently and in good faith prosecutes the work of endeavoring to discover mineral thereon.

Id.

54. *Id.* at 348. For a discussion of what work the Mining Law of 1872 presently requires on mining claims after discovery but prior to the obtaining of a patent, see 30 U.S.C. §§ 28-28e (1976).

55. 249 U.S. at 348.

To what extent the possessory right of an explorer before discovery is to be deduced

*Ranchers Exploration and Development Co. v. Anaconda Co.*⁵⁶ is illustrative:

Proposals for liberalizing the rule [*pedis possessio*] have been considered in the industry and studied by Congress. But even with the press of modern demands and procedures, seemingly it can be agreed upon neither in the industry nor in the Congress. It would be presumptuous as well as unwarranted for me to ignore the holding of the Supreme Court, [in *Union Oil Co. v. Smith*] with its expressed limitations.⁵⁷

The court in *Ranchers Exploration and Development Co.* went further, interpreting *Union Oil Co.* as standing for the proposition that the protection of the doctrine of *pedis possessio* could not be applied to a group of claims without the elements of the doctrine being satisfied on each individual claim within that group.⁵⁸ Other courts have also made the same determination,⁵⁹ resulting in the development of a general judicial reluctance to interpret *Union Oil Co.* differently.⁶⁰

from the invitation extended in § 2319 [30 U.S.C. § 22], to what extent it is to be regarded as a local regulation of the kind recognized by that section and the following ones, and to what extent it derives force from the authority of the mining States to regulate the possession of the public lands in the interest of peace and good order, are questions with which we are not now concerned. Nor need we stop to inquire whether the right is limited to the ground actually occupied in the process of exploration, or extends to the limits of the claim. These questions and others that suggest themselves are not raised by the present record, which concerns itself solely with the rights asserted by the defendant under the Act of 1903.

Id.

56. 248 F. Supp. 708 (D. Utah 1965).

57. *Id.* at 721.

58. *Id.* The defendants, Anaconda Co. and others, had argued that the doctrine of *pedis possessio* could be applied to a group or area of claims provided that the three elements of *pedis possessio* were satisfied on some of the claims within the group or area. See notes 99-118 *infra* and accompanying text for a discussion of the pros and cons of applying the doctrine of *pedis possessio* on a group or area basis rather than the traditional claim-to-claim basis.

59. See, e.g., *Adams v. Benedict*, 64 N.M. 234, 327 P.2d 308 (1958) in which it was stated:

The work done on other claims does not supply the requirement [of actual possession, working towards discovery]. . . . Likewise, the possession of each claim, . . . must be protected by actual occupation of that identical claim and the diligent and persistent work thereon.

. . . .

. . . . To hold otherwise would allow a person to hold vast amounts of land by merely claiming it without doing the work required by the rules It would encourage speculation

Id. at 317. But cf. Olson, *New Frontiers in Pedis Possession: Mac Guire v. Sturgis*, 7 LAND AND WATER L. REV. 367, 375 (1972), who suggests that this language by the court was dictum and that the issue of how *pedis possessio* applied to a group or area basis was not before the court. See also *Davis v. Nelson*, 329 F.2d 840, 845 (9th Cir. 1964).

60. See *Geomet Exploration v. Lucky Mc Uranium Corp.*, 124 Ariz. 55, 601 P.2d 1339 (1979).

III. RECENT JUDICIAL EXPANSION OF *PEDIS POSSESSIO*

Not all courts, however, have interpreted *Union Oil Co. v. Smith*⁶¹ in the same way as the court did in *Ranchers Exploration and Development Co. v. Anaconda Co.*⁶² The United States District Court of Wyoming in *MacGuire v. Sturgis*⁶³ extended *pedis possessio*'s protection to a group of claims without requiring the doctrine's elements to be satisfied on each individual claim within the group. That suit arose from a dispute between MacGuire and Sturgis over 231 mining claims. MacGuire had previously staked the claims in accordance with the applicable Wyoming statutes but was not in actual possession of the claims at the time of Sturgis' entry. The 231 claims were part of a larger group of MacGuire's claims, and he was working towards mineral discovery on some of them. The issue before the court was whether MacGuire's rights under the doctrine of *pedis possessio* extended to the 231 disputed claims. In holding that his *pedis possessio* rights did include the 231 claims, the Court relied on five factors: (1) the geological similarity and reasonable size of the area claimed; (2) the validation work required by the state statute had been completed; (3) an overall work program for the area was in operation; (4) the work program was being diligently pursued; and (5) the economic impracticability of protecting only those claims in the actual possession of a good faith prospector.⁶⁴

The Tenth Circuit Court of Appeals in *Continental Oil Co. v. Natrona Service, Inc.*⁶⁵ also appeared to be willing to apply the doctrine of *pedis possessio* to a group or area basis where the five elements established in *MacGuire* were satisfied.⁶⁶ However, the court declined a request to write definitions and guidelines for the application of the

61. 249 U.S. 337 (1919).

62. 248 F. Supp. 708 (D. Utah 1965).

63. 347 F. Supp. 580 (D. Wyo. 1971).

64. *Id.* at 584-85.

Plaintiff is presently entitled to the exclusive possession . . . on a group or area basis where, as here, the following exists or was done for his benefit: (a) the geology of the area claimed is similar and the size of the area claimed is reasonable; (b) the discovery (validation) work referred to in WYO. STAT. § 30-6 (1957) is completed; (c) an overall work program is in effect for the area claimed; (d) such work program is being diligently pursued; *i.e.*, a significant number of exploratory holes have been systematically drilled; and (e) the nature of the mineral claimed and the cost of development would make it economically impracticable to develop the mineral if the locator is awarded only those claims on which he is actually present and currently working.

Id.

65. 588 F.2d 792 (10th Cir. 1978).

66. *Id.* at 797-98.

doctrine to a group or area basis. Instead, it chose to affirm the case on the basis that there was sufficient evidence to support the jury's conclusion that there was a lack of good faith on the part of Continental Oil Co., the party who sought the protection of the doctrine of *pedis possessio*.⁶⁷

Most recently, the case of *Lucky Mc Uranium Corp. v. Geomet Exploration*⁶⁸ presented the United States Supreme Court with the opportunity to decide whether *pedis possessio*'s protection applied only on a claim-by-claim basis or whether, under certain circumstances, the doctrine could extend to a group of claims without its elements being satisfied on each individual claim within the group. In August and September of 1976, Lucky Mc Uranium conducted aerial and land explorations over large areas of the federally-owned Artillery Peak Mining District in Arizona searching for anomalies indicative of uranium deposits.⁶⁹ Based on the results of these tests, Lucky Mc Uranium proceeded to mark, post, drill and record, according to the applicable Arizona statutes,⁷⁰ 200 claims in the Artillery Peak Mining District.⁷¹ In December, 1976, Geomet Exploration, aware of Lucky Mc Uranium's claims but believing them to be invalid,⁷² entered upon one of these

67. *Id.* at 797-99.

68. 124 Ariz. 60, 601 P.2d 1344 (Ct. App. 1979), *rev'd*, 124 Ariz. 55, 601 P.2d 1339 (1979), *cert. granted*, 100 S. Ct. 3009, *appeal dismissed*, 49 U.S.L.W. 3173 (Sept. 23, 1980) (pursuant to Sup. Ct. R. 53, 9-12-80).

69. Modern sophisticated scintillation equipment was used in exploration for these anomalies, which are physical differences between rock types or discontinuities in geological formations. *Id.* at —, 601 P.2d at 1345.

70. ARIZ. REV. STAT. ANN. §§ 27-202 to -204 (1978).

71. This equaled 4,000 acres, which was the maximum size allowed because no single placer claim on the public land can exceed 20 acres. *See* 30 U.S.C. § 35 (1976).

72. The belief of Geomet Exploration that Lucky Mc Uranium's claims were invalid raised the issue of good faith. The good faith issue pertains particularly to two of the three traditional elements of *pedis possessio*. The party seeking the doctrine's protection must not only be in actual possession of the claims but also must, in good faith, be diligently working towards a discovery. This is an objective test determined by the type and amount of work performed on the claims. *See Ranchers Exploration and Dev. Co. v. Anaconda Co.*, 248 F. Supp. 708 (D. Utah 1965). However, a party seeking to take over a mining claim that another allegedly claims to be his must enter that claim in good faith. This is apparently a partly subjective and partly objective test. Mere knowledge of another's claim prior to entry is not bad faith unless, of course, the party knows that the other's claim is legitimate. However, whether one's pre-discovery claim is legitimate depends upon whether the elements of *pedis possessio* have been satisfied (*i.e.*, whether the present claimant is claiming in good faith). *Id.* at 727. *See generally* Fiske, *supra* note 7. Therefore, the good faith issue turns upon how the court interprets the doctrine of *pedis possessio*. If it adheres to the three traditional elements of *pedis possessio*, then each must be satisfied for good faith to be found. One cannot be in good faith diligently working towards discovery if he is not in actual possession of the claim and any attempt to exclude another would necessarily be done in bad faith if any of the first two elements are not satisfied. If the court does not adhere strictly to the three traditional elements of *pedis possessio*, then good faith is much easier to establish and conversely, bad faith by

claims and began drilling activities. Later, Geomet located a total of seven claims on the land already claimed by Lucky Mc Uranium. When Geomet Exploration refused to vacate these claims, Lucky Mc Uranium brought suit seeking exclusive possession of all 200 claims under the doctrine of *pedis possessio*. The trial court, recognizing the group or area application of *pedis possessio*, rendered judgment for Lucky Mc Uranium.

In affirming the trial court's decision, the Arizona Court of Appeals dutifully noted the United States Supreme Court's decision in *Union Oil Co. v. Smith*,⁷³ the three basic elements of the doctrine of *pedis possessio* outlined in that opinion, and the alleged danger of misuse of a more liberal doctrine of *pedis possessio* by a "non-diligent or bad faith prospector."⁷⁴ Although Lucky Mc Uranium was not in actual physical possession of the seven disputed claims at the time of Geomet Exploration's entry, the Court of Appeals held that Lucky Mc Uranium was in "actual physical occupancy" of its claims.⁷⁵ In reaching this decision, the Arizona Court of Appeals found that the five factors established in *MacGuire v. Sturgis*⁷⁶ had been satisfied by Lucky Mc Uranium.⁷⁷ Specifically, the court found that Lucky Mc Uranium had done the following: (1) posted and recorded notices of the 200 claims according to the applicable Arizona statutes; (2) begun drilling deep exploration holes on some of the 200 claims; (3) established an overall work program; (4) expended approximately \$48,000 in the disputed claim area and nearly \$70,000 overall; and (5) located claims in an area that was geologically similar and the size of its claims was reasonable.⁷⁸

the party seeking to enter the claimed area. *Compare* Geomet Exploration v. Lucky Mc Uranium Corp., 124 Ariz. 55, 601 P.2d 1339 (1979) with Geomet Explanation v. Lucky Mc Uranium Corp., 124 Ariz. 60, 601 P.2d 1344 (Ct. App. 1979). The result is that until the scope of the doctrine of *pedis possessio* is resolved a mineral prospector's pre-discovery claim may become the subject of litigation unless he diligently adheres to the three traditional elements of *pedis possessio*. See Fiske, *supra* note 7, at 216.

73. 249 U.S. 337 (1919).

74. 601 P.2d at 1346.

75. *Id.* The distinction between actual physical possession and "actual physical occupancy" is more form than substance. Lucky Mc Uranium was not physically on the seven disputed claims when Geomet Exploration entered them, but the Arizona Court of Appeals found that what Lucky Mc Uranium had done on those seven claims and on the other 193 claims was sufficient for Lucky Mc Uranium to be in "actual physical occupancy" of all 200 claims. *Contra*, 124 Ariz. 55, —, 601 P.2d 1339, 1341 (1979).

76. 347 F. Supp. 580, 584-85 (D. Wyo. 1971).

77. 601 P.2d at 1346-47.

78. 601 P.2d at 1346.

Geomet Exploration appealed to the Arizona Supreme Court,⁷⁹ which reversed the decisions of the Court of Appeals and the trial court, fearing speculator monopolization of the public land. The Arizona Supreme Court's principle disagreement with its two lower courts focused on their liberal interpretation and application of the elements of the doctrine of *pedis possessio*. In particular, the court stated "to adopt the premise urged by Lucky [Lucky Mc Uranium] eviscerates the actual occupancy requirement of *pedis possessio*."⁸⁰ The Arizona Supreme Court held "that *pedis possessio* protects only those claims actually occupied [provided also that work toward discovery is in progress] and does not extend to contiguous claims on a group or area basis."⁸¹ The court was concerned that a liberalization of the doctrine of *pedis possessio* to cover a group of claims without requiring actual occupancy of each claim in the group would result in speculator monopolization of the public land.⁸²

Lucky Mc Uranium filed an appeal with the United States Supreme Court, which granted certiorari⁸³ and was scheduled to hear arguments in the case during its 1980 term. The case, however, was dismissed by the appellant, Lucky Mc Uranium, under Rule 53 of the Supreme Court's rules, prematurely ending this opportunity for a judicial resolution of the future application of *pedis possessio*.⁸⁴

Despite the dismissal of *Lucky Mc Uranium Corp. v. Geomet Exploration*,⁸⁵ our country's growing need for both "fuel and nonfuel" minerals,⁸⁶ and its related need to become less dependent on foreign

79. *Geomet Exploration v. Lucky Mc Uranium Corp.*, 124 Ariz. 55, 601 P.2d 1339 (1979).

80. *Id.* at 1341.

81. *Id.* at 1342.

82. *Id.*

83. *Lucky Mc Uranium Corp. v. Geomet Exploration*, 100 S. Ct. 3009, *appeal dismissed*, 49 U.S.L.W. 3173 (Sept. 23, 1980) (pursuant to Sup. Ct. R. 53, 9-12-80).

84. For a discussion of this dismissal and this author's theory for such dismissal, see notes 19-26 *supra* and accompanying text.

85. 124 Ariz. 60, 601 P.2d 1344 (Ct. App. 1979), 124 Ariz. 55, 601 P.2d 1339 (1979), *cert. granted*, 100 S. Ct. 3009, *appeal dismissed*, 49 U.S.L.W. 3173 (Sept. 23, 1980) (pursuant to Sup. Ct. R. 53, 9-12-80).

86. See note 27 *supra*. An example of a domestic fuel mineral that may play an important role in alleviating our dependence on foreign oil is uranium, a mineral that is still covered by the Mining Law of 1872. The difficulty of encouraging greater exploration for uranium on the public land under the Mining Law of 1872, and the traditional doctrine of *pedis possessio* was alluded to by Olson, *supra* note 59, at 376:

[T]he need for a solution to the problem of how to secure pre-discovery possessory rights so as to encourage uranium exploration and development, and correspondingly discourage claim jumpers and nuisance locators, but without opening the door to speculation and monopoly has become more acute due to the increasing depth at which uranium is found and the consequent rise in pre-discovery exploratory costs.

sources for these minerals⁸⁷ dictates that some change be made in the Mining Law of 1872, to promote increased domestic hard rock mineral exploration on the public land.⁸⁸ Greater pre-discovery protection of a prospector's claims would facilitate achievement of this goal, and presently, legislation appears to be the most viable means of providing this protection.

IV A LEGISLATIVE CHOICE: LEASING VS. FREE ACCESS

A. *Leasing*

The idea of replacing the Mining Law of 1872 with a leasing system is not novel,⁸⁹ and clearly, a lease would provide greater pre-discovery protection than the doctrine of *pedis possessio* because the lessee's claims would be protected for a specified period of time without his having to be in actual possession and diligently working towards discovery on each individual claim, simultaneously.

Leasing advocates argue that the Mining Law of 1872 does not provide for: (1) effective multiple use of the public land; (2) adequate environmental safeguards; (3) efficient allocation of scarce resources; and (4) adequate information to be obtained to make rational decisions about future energy development on the public land.⁹⁰ Leasing supporters also argue that the Mining Law of 1872 represents the last vestige of the out-moded nineteenth-century national policy of free access to the public land,⁹¹ and that today the public should receive a fair return, in the form of lease royalties, from all the resources on the public land, including those minerals covered by the Mining Law of 1872.⁹²

Id.

87. For a discussion of our foreign dependency on "nonfuel" minerals and the domestic availability of some of these minerals, both on federal and nonfederal lands, see U.S. MINERAL VULNERABILITY, *supra* note 27, at 58-78.

88. See notes 27-28 *supra* and accompanying text.

89. See ENVIRONMENTAL QUALITY, note 4 *supra*.

Despite the changes which the 1872 Law [Mining Law of 1872] has undergone at the hands of Congress, the judiciary, the BLM [Bureau of Land Management] and the Forest Service, the pressure to reform or repeal the law has mounted. . . . Every session of Congress since 1969, for instance, has seen legislation proposed to scrap the claim patent system in favor of some form of leasing.

Id. at 10. See, e.g., *Mineral Development on Federal Lands: Hearings on S. 1040, S. 3085, and S. 3086 Before the Subcomm. on Minerals, Materials and Fuels*, 93d Cong., 2d Sess. (1974) (S. 1040 and S. 3085 were the two leasing bills).

90. See ENVIRONMENTAL QUALITY, *supra* note 4, at 27-33.

91. The premise behind this nineteenth-century national policy was to encourage mineral development on the public lands in the west. *Id.* at 3.

92. *Id.* at 30.

Essentially, the reason leasing advocates want the present Mining Law of 1872 abolished and replaced by a leasing system is that they believe leasing would provide greater governmental control over the mining industry's use of the public land.⁹³ Not surprisingly, it is for this same reason that much of the mining industry is opposed to a leasing system for hard rock minerals,⁹⁴ and it is the mining industry's opposition that argues most effectively against leasing. After all, if the goal is to encourage greater hard rock mineral exploration on the public land, it is unlikely that a system which the industry opposes will provide the incentive to achieve this goal.⁹⁵

At one time, members of the mining industry also opposed leasing because of the royalty payments associated with it.⁹⁶ However, the recent support by members of the mining industry for H.R. 5831,⁹⁷ the latest attempt to repeal the Mining Law of 1872, suggests that a royalty may no longer be as objectionable because that bill, while retaining the right of free access to the public land, included a two percent royalty provision.⁹⁸

93. Edwards, *The 1969 View of the 1872 Law: Current Proposals to Modernize or to Replace the General Mining Law*, 15 ROCKY MTN. MIN. L. INST. 139, 141-45, 153 (1969); Hansen, *Why A Location System for Hard Minerals?*, 13 ROCKY MTN. MIN. L. INST. 1, 11 (1967).

94. See Edwards, *supra* note 93, at 153. See also *Hearings on H.R. 5831 and H.R. 9292*, *supra* note 30 (statement and questioning of Howard L. Edwards).

We [Mr. Edwards was the Associate General Counsel for the Anaconda Co., and the Chairman of the Public Lands Committee, American Mining Congress] believe that a leasing system for hard-rock minerals would be tantamount to a moratorium on new mineral exploration for years, perhaps a decade. All proposed leasing systems vest discretion in the Secretary [of Interior] to elect what lands should be leased and whether particular leases should or should not be issued. Recent history demonstrates that Secretarial discretion has resulted in the frustration of leasing processes.

. . . .

The all important right of access and self-initiation of mining rights through the location system and the right to patent a mining claim must be preserved. The alternative of a leasing system . . . is wholly unacceptable.

Id. 138-39, 142.

95. The importance of providing an incentive to encourage exploration for hard rock minerals has even been recognized by critics of the Mining Law of 1872: "Whatever system [leasing or some other alternative] is agreed upon must provide the economic incentive to look for and develop minerals." ENVIRONMENTAL QUALITY, *supra* note 4, at 27. Ultimately, it is not important whether leasing might be an effective alternative; what is important is that the mining industry perceives leasing as a bad alternative.

96. Edwards, *supra* note 93, at 151-52.

97. See note 30 *supra*.

98. See note 94 *supra*. Howard L. Edward's statement in support of H.R. 5831, which included a royalty provision but retained free access, suggests a change in attitude, or perhaps, a willingness to compromise on the royalty issue in return for retention of free access to the public land.

B. *Free Access*

Legislation amending the Mining Law of 1872 to include a more liberal version of the judicial doctrine of *pedis possessio* would probably provide the mining industry with the incentive to increase mineral explorations on the public land. Presently, the incentive to increase mineral explorations on the public land is inhibited because the pre-discovery protection provided by the traditional doctrine of *pedis possessio* is generally applied only on a claim-to-claim basis rather than on a group basis.⁹⁹ Expansion of the doctrine of *pedis possessio*'s protection to a group or area of claims would mitigate the risk of pre-discovery loss for failure to satisfy the three elements of *pedis possessio* on each claim within the group and would allow hard rock mineral prospectors to engage in more innovative and extensive exploration programs without fear of losing their economic investment before actual discovery. Expansion of the doctrine would also bring the Mining Law of 1872 more into line with modern mining practices.¹⁰⁰

Any legislation, however, that retains the principle of free access to the public land for mining purposes and also attempts to expand the protection of the doctrine of *pedis possessio* to a group claim basis will be opposed. Not only will leasing advocates and other public land users, viewing the free access principle as conflicting with the multiple use concept, resist such legislation,¹⁰¹ but, those fearing that an expanded pre-discovery doctrine will lead to speculator monopolization of

99. See Crouch, *Title to the Unpatented Mining Claim*, 23 ROCKY MTN. MIN. L. INST. 879, 916 (1977).

The primary problem with relying on *pedis possessio* in a mining claim acquisition program is that the protection of the doctrine is usually limited to individual claims. Consequently, the elements of *pedis possessio* must be independently established for each claim sought to be protected by the doctrine. Therefore, the doctrine is generally inadequate to protect a locator's pre-discovery possessory rights to an entire block of claims. While the locator's *pedis possessio* rights may be transferred and assigned, the doctrine of *pedis possessio* and the protection afforded thereby is of limited use to a company contemplating the acquisition of a large block of claims which have not been validly located by discovery and the accomplishment of the mechanical acts of location.

Id. (footnotes omitted).

100. See *Geomet Exploration v. Lucky Mc Uranium Corp.*, 124 Ariz. 60, 601 P.2d 1344 (Ct. App. 1979). The court stated:

We point out this rather technical material [Lucky Mc Uranium's use of scintillation equipment] to emphasize that the search for uranium is a far cry from the old prospector on a burro searching with a pick and shovel for an outcrop of valuable mineral. Some of the mining practices formulated under the General Mining Law of 1872 have little practical validity when applied to the modern search for uranium.

Id. at 1345.

101. See ENVIRONMENTAL QUALITY, *supra* note 4, at 27.

the public land, will also combat its passage.¹⁰²

The idea that the Mining Law of 1872's policy of free public land access conflicts with the multiple use of the public land and that somehow leasing of the public land would not, fails to consider two important facts. First, not all public land is open for hard rock mining purposes;¹⁰³ and secondly, on those lands that are open for hard rock mining, a prospector, prior to discovery, has only the status of a licensee or tenant at will¹⁰⁴ against the government and thus may be removed from the public land by the United States.¹⁰⁵ Even the pre-discovery protection afforded by *pedis possessio* will not shelter a prospector from such governmental removal action. Thus, much of the governmental control over public land use that leasing allegedly would provide already exists under the Mining Law of 1872.¹⁰⁶

102. *Geomet Exploration v. Lucky Mc Uranium Corp.*, 124 Ariz. 55, 601 P.2d 1339 (1979). The Arizona Supreme Court indicated its concern about this in stating:

If one may, by complying with preliminary formalities of posting and recording notices, secure for himself the exclusive possession of a large area upon only a small portion of which he is actually working, then he may, at his leisure, explore the entire area and exclude all others who stand ready to peaceably and openly enter unoccupied sections for the purpose of discovering minerals.

Id. at 1342.

103. *Oklahoma v. Texas*, 258 U.S. 574, 600 (1922), *appeal denied*, 260 U.S. 711 (1923). The Court held that the Mining Law of 1872 did not include land around the Capitol in Washington, land in the Arlington National Cemetery, land in Yosemite and Yellowstone National Parks, lands in military reservations in the western states, and to any other lands where the U.S. directs that disposal be only under the laws. *See United States v. Midwest Oil Co.*, 236 U.S. 459, 483 (1915), where the Court recognized the power of the President to withdraw lands from the Mining Law of 1872's scope by proclamation. However, executive power to withdraw public land areas "aggregating 5,000 acres or more" must now be approved by Congress. Federal Land Policy and Management Act of 1976, 43 U.S.C. § 1714(c) (1976). *See also* note 3 *supra*.

104. *Union Oil Co. v. Smith*, 249 U.S. 337, 346 (1919).

105. *See generally* Tognoni, *Rule of Man vs. The American Mining Laws: The Persecution and Elimination of the Small Miner on Public Lands in the United States*, 55 N.D.L. REV. 339 (1979).

106. Many leasing advocates would disagree that adequate governmental control already exists as long as the mining industry, unlike any other major user of the public land, has free access to any area of the public land. Conversely, members of the mining industry would argue that the government's right to withdraw areas of the public land has been used to promote other uses of the public land, at the expense of mining, despite full knowledge of our dependence on foreign sources for minerals that could be mined domestically. Supportive of the mining industry's argument is the government's action concerning an area of public land in Montana (Stillwater Complex) containing the richest platinum group metals deposit in the world, which was also being considered for wilderness classification:

An interesting sidelight to the Stillwater Complex question was a December 5, 1977, Director, Bureau of Mines, memo on a Forest Service environmental impact statement on management of the Beartooth Face Planning Unit in which the Stillwater Complex deposits occur. Because about one-half of the planning unit was classified as "roadless" for consideration as Rare II Wilderness, the memo read: "In view of the excellent potential for chromite, platinum, copper, nickel, uranium, coal and petroleum in this area, we would hope that whatever plan is finally adopted will allow sufficient latitude for mineral recovery in this highly, perhaps uniquely mineralized area." That memo was returned by the Assistant Secretary to the Bureau of Mines for deletion of this statement.

The fear that an expanded doctrine of *pedis possessio* will lead to speculator monopolization of the public land is not limited to the opponents of the Mining Law of 1872. Those supporting the Mining Law of 1872 and an expanded doctrine of *pedis possessio* have recognized that "the traditional purposes of the General Mining Law [free access to the public land and the promotion of mineral exploration thereon] must be considered at all times to determine whether or not a proposed extended or different application of *pedis possessio* is consistent with [those traditional purposes]."¹⁰⁷ Without adequate safeguards, an expansion of *pedis possessio* could lead to monopolization of the public land for purposes totally unrelated to mining, much to the chagrin of the mining industry. Any attempt, therefore, to expand the protection of *pedis possessio* beyond its claim-to-claim basis must provide adequate safeguards against monopolization of the public land; not only to allay the fears of the opposition, but also, to protect the major supporter of an expanded doctrine, the mining industry.

The problem is how to incorporate into legislation expanding the protection of *pedis possessio*, regulations designed to control the use of public land and protect against its monopolization, that are acceptable to both the proponents and opponents of an expansion of *pedis possessio* and the Mining Law of 1872. It is suggested that much of the mutual fear of public land monopolization and the concern over conflicting uses of the public land can be allayed by including in legislation the five factors established in *MacGuire v. Sturgis* as additional elements¹⁰⁸ to be satisfied by a party seeking to avail himself of the group or area protection provided by an expanded *pedis possessio* doctrine. Thus, the protection of the expanded doctrine of *pedis possessio* would be available only if:

- (1) the area claimed is geologically similar and reasonable in size;
- (2) the validation work required by the state's statutes has been completed;
- (3) an overall work program for the area is in operation;
- (4) the work program is being diligently pursued; and
- (5) it is economically impracticable to protect only those claims in the actual physical possession of the prospec-

U.S. MINERAL VULNERABILITY *supra* note 27, at 61-62 n.92.

107. Fiske, note 7 *supra* at 184.

108. The three traditional elements of *pedis possessio*: (1) actual possession; (2) diligent prosecution of work towards discovery; and (3) exclusion of others would also need to be satisfied but (1) and (2) would need only to be satisfied on a portion of the claims. See note 46 *supra*.

tor.¹⁰⁹

These five factors, coupled with the government's already existing authority to remove areas of the public land from the coverage of the Mining Law of 1872, and to remove, prior to discovery, mineral prospectors who fail to comply with the applicable statutory requirements, may provide sufficient governmental control over hard rock mining on the public land to appease the more reasonable opponents of the Mining Law of 1872.¹¹⁰ More importantly, however, such control would be more acceptable to the mining industry because it is achieved without interference with the basic principle of free access to the public land.¹¹¹ It is this fact that makes the expanded doctrine of *pedis possessio* a better legislative alternative than leasing.

One advantage that this proposal for expansion of pre-discovery protection has over previous legislative attempts is that the distinction between "assessment work, discovery work, and *pedis possessio*" is preserved.¹¹² In contrast, legislative bill S. 3086,¹¹³ while retaining the pol-

109. See note 64 *supra*.

110. Additional steps that could be taken in an effort to achieve an acceptable compromise with the opponents of the Mining Law of 1872 would be to include a royalty provision and a patent provision similar to those in H.R. 5831. H.R. 5831 provided for a two percent royalty to be paid to the United States, and also apparently limited a miner's patent title to the interest in the discovered mineral. See *Hearings on H.R. 5831 and H.R. 9292, supra* note 30, H.R. 5831 §§ 8-10. But § 8 of H.R. 5831, entitled "Rights Granted by Mineral Patent" appears to grant title not only to the mineral, but also to the remaining interests in the land. *Id.* However, the statement of Howard L. Edwards, representing the American Mining Congress (the drafters of H.R. 5831), to the Subcommittee indicates that a mineral patent under H.R. 5831 was to be limited to the discovered mineral.

Instead of a mineral patent granting full title to the land, as is now provided in the present mining law, only a very limited title would be acquired under a patent. The minerals would be patented. There would be reserved to the United States all leasing act minerals, all gas and other minerals, and the bill provides for the restriction that the lands could only be used for mining purposes; and if the lands were used for purposes other than mining, the lands would revert to the United States.

Id. at 142.

111. See note 94 *supra* for an indication of the importance of free access to the mining industry.

112. See Fiske *supra* note 7, at 213, where he states:

There is some misunderstanding within the industry about the relationship of assessment work, discovery work, and *pedis possessio*. Discovery alone of a valuable mineral will not put that substance into the national economy, even though vested rights are earned by the discovery, so assessment work is provided for to induce development and exploitation of the deposit. Therefore, by definition, the work necessary under *pedis possessio* precedes discovery, that required for annual labor follows a discovery, and the latter cannot meet the requirement for the former. Furthermore, work under *pedis possessio* must be diligent and persistent. The bona fide performance of what is denominated as assessment work, being specifically \$100.00 worth of labor or improvement, might be performed upon a claim in a single week, and the claim left idle for the balance of the assessment year. This could be fatal under *pedis possessio* even though it would preserve a post-discovery possessory right.

icy of free access, attempted to expand pre-discovery protection by replacing the three judicial elements of *pedis possessio*¹¹⁴ with a location and assessment work requirement analogous to that found in the Mining Law of 1872.¹¹⁵ Unlike the Mining Law of 1872, however, S. 3086 did not require mineral discovery, before annual assessment work would suffice to protect the area claimed.¹¹⁶ This would have enabled a person to maintain control over the area without commencing exploration activities, thereby making the danger of speculator monopolization of the public land a very real possibility. Legislation that incorporates the five elements established in *MacGuire v. Sturgis*¹¹⁷ as the test for determining whether pre-discovery protection will be expanded to a group of claims, would avoid this risk of monopolization, if competently administered.

V. CONCLUSION

Expansion of the doctrine of *pedis possessio* to a group or area basis represents the simplest and, perhaps, most effective means of encouraging greater exploration for hard rock minerals on the public land. But any attempt to increase mining activity on the public land will be opposed by environmentalists and other users of the public land.¹¹⁸ Therefore, any proposed legislation to expand the doctrine of *pedis possessio* must include sufficient safeguards against misuse of the public land to at least partially satisfy these opponents of increased public land mining. Compromise, however, will not be easy.

Mining men are not callous to natural beauty or the heritage owing to future generations. But it is impossible to establish any meaningful dialogue with advocates of untouched wilderness who argue for the preservation of more land to serve a burgeoning population while refusing to recognize the practical problems of developing a mineral supply for the expanded needs of that population. Unless reason overcomes passion,

"Discovery work" has been referred to as the work necessary to show good faith on the part of a locator. *Id.*

113. See *Mineral Development on Federal Lands: Hearings on S. 1040, S. 3085, and S. 3086 Before the Subcomm. on Minerals, Materials and Fuels*, 93d Cong., 2d Sess. (1974).

114. See note 7 *supra*.

115. 30 U.S.C. § 28 (1976).

116. See note 113 *supra*, at 74-75.

117. See note 64 *supra*. H.R. 5831 did incorporate the work plan requirement but only after patent title had been obtained. See *Hearings on H.R. 5831 and H.R. 9292 supra* note 30, H.R. 5831 § 9. This requirement should be retained, but also applied prior to patenting.

118. See ENVIRONMENTAL QUALITY, *supra* note 4, at 27.

there is no room for compromise between the philosophies of mineral rights and scenic values.¹¹⁹

While this language may appear somewhat dogmatic, it does recognize the need for compromise, and without compromise, neither side of this mining issue can hope to win. Ultimately, however, the responsibility for forging a compromise does not lie with the mining advocates, or their opponents. Rather, the people through their local, state, and federal governments must realistically look at the country's energy and environmental needs and decide how to most effectively satisfy those needs.

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119. Hansen, *supra* note 93, at 8-9 (footnote omitted).